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## Hot electron transport in metallic spin valve and graphene-silicon devices at the nanoscale

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## List of publications

1. "Hot electron transmission in metals using epitaxial NiSi<sub>2</sub>/n-Si(111) interfaces",  
**S. Parui**, B. Wit, L. Bignardi, P. Rudolf, B. Kooi, B. J. van Wees and T. Banerjee,  
*Appl. Phys. Lett.* **99**, 032104 (2011).
2. "Nanoscale hot electron transport across Cu/n-Si(100) and Cu/n-Si(111) interfaces",  
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*Physica Status Solidi (Rapid Research Letters)* **5**, 388 (2011).
3. "Comparison of hot-electron transmission in ferromagnetic Ni on epitaxial and polycrystalline Schottky interfaces",  
**S. Parui**, K. G. Rana, L. Bignardi, B. J. van Wees and T. Banerjee,  
*Phys. Rev. B* **85**, 235416 (2012).
4. "Spin transport in metal and oxide devices at the nanoscale",  
**S. Parui**, K. G. Rana and T. Banerjee,  
*Electron Devices Meeting (IEDM), 2012 IEEE International*, 11.4.1-11.4.4, (2012).
5. "Probing electron transport across a LSMO/Nb:STO heterointerface at the nanoscale",  
K. G. Rana, **S. Parui** and T. Banerjee,  
*Phys. Rev. B* **87**, 085116 (2013).
6. "Hot electron transport in a strongly correlated transition metal oxide",  
K. G. Rana, T. Yajima, **S. Parui**, A. F. Kemper, T. P. Devereaux, Y. Hikita, H. Y. Hwang and T. Banerjee,  
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7. "Probing hot electron transport across an epitaxial Schottky interface of  $\text{SrRuO}_3/\text{Nb:SrTiO}_3$ ",  
S. Roy, A. M. Kamerbeek, K. G. Rana, **S. Parui** and T. Banerjee,  
*Appl. Phys. Lett.* **102**, 192909 (2013).
8. "Hot electron attenuation of direct and scattered carriers across an epitaxial Schottky interface",  
**S. Parui**, P. S. Klandermans, S. Venkatesan, C. Scheu and T. Banerjee,  
under consideration in *J. Phys.: Condens. Matter*.
9. "Evidence of spin scattering and collection of hot electrons at different conduction minima in Si",  
**S. Parui**, K. G. Rana and T. Banerjee,  
under review in *Appl. Phys. Lett.*
10. "Measurement of nanoscale hot hole attenuation length in Cu for directly injected and excited hot holes across Cu/p-Si(100) interface",  
**S. Parui et al.**, in preparation.
11. "Spin-dependent scattering in graphite nanoflakes",  
**S. Parui et al.**, in preparation.
12. "Temperature sensitive transport characteristics of graphene/n-Si interfaces",  
**S. Parui et al.**, in preparation.
13. "Nanoscale hot carriers transport across graphene/n-Si interfaces",  
**S. Parui et al.**, in preparation.